

# AT-6102

## IEEE 802.3af Universal Multi-voltage PoE Splitter

### Installation and User Guide

## Electrical Safety and Emissions Standards

**Standards:** This product meets the following standards.

U.S. Federal Communications Commission
<p>This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:</p> <p>This device may not cause harmful interference.</p> <p>This device must accept any interference received, including interference that may cause undesired operation.</p> <p>Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:</p> <ul style="list-style-type: none"><li>- Reorient or relocate the receiving antenna.</li><li>- Increase the separation between the equipment and receiver.</li><li>- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.</li><li>- Consult the dealer or an experienced radio/TV technician for help.</li></ul>

Canadian Department of Communications
<p>This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.</p> <p>Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.</p>

### **Safety and Electromagnetic Emissions Certifications**

EMI/RFI and Immunity: FCC Part 15 Class B; FCC Part 15B, 15C, and 15E Certified; EN 55022/CISPR 22 Class B; ; EN 301 893; EN 300 328; EN 301 489 Transmitter EMC; Canada IC; CE Mark emission/immunity; CE Marked (compliant with RTT&E, EMC, LVD Directives); C-Tick; GOST

Electrical Safety: UL 60950-1, CSA C22.2 No. 60950-1-03 (cUL<sub>US</sub>), EN60950-1, EN 60593-IP53; GOST

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## Preface

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### ***Purpose of This Guide***

This guide is intended for network administrators who are responsible for installing and maintaining the AT-6102 IEEE 802.3af PoE Splitter.

### ***How This Guide is organized***

This guide contains the following chapters and appendices:

- |           |   |
|-----------|---|
| Chapter 1 | <b>Introduction:</b> describes the features, functions, LEDs, and ports on the equipment.                                 |
| Chapter 2 | <b>Installation:</b> describes how to install the equipment.<br><b>Specifications:</b> provides equipment specifications. |

### ***Document Conventions***

This guide uses several conventions that you should become familiar with before you begin to install the product:



#### **Note**

A note provides additional information. Please go to the Allied Telesis website [www.alliedtelesis.com](http://www.alliedtelesis.com) for the translated safety statement in your language.



#### **Warning**

A warning indicates that performing or omitting a specific action may result in bodily injury.



#### **Caution**

A caution indicates that performing or omitting a specific action may result in equipment damage or loss of data.

### ***Where to Find Web-based Guides***

The installation and user guides for all Allied Telesis products are available in portable document format (PDF) on our web site at <http://www.alliedtelesis.com/>. You can view the documents online or download them onto a local workstation or server.

## Contacting Allied Telesis

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This section provides Allied Telesis contact information for technical support as well as sales and corporate information.

### ***Online Support***

You can request technical support online by accessing the Allied Telesis Knowledge Base: <http://www.alliedtelesis.com/kb/>. You can use the Knowledge Base to submit questions to our technical support staff and review answers to previously asked questions.

### ***Email and Telephone Support***

For Technical Support via email or telephone, refer to the Support & Services section of the Allied Telesis web site: <http://www.alliedtelesis.com/support/>.

### ***Warranty***

For product registration and warranty conditions please visit Allied Telesis website: <http://www.alliedtelesis.com/support/warranty/>

### ***Returning Products***

Products for return or repair must first be assigned a return materials authorization (RMA) number. A product sent to Allied Telesis without an RMA number will be returned to the sender at the sender's expense.

To obtain an RMA number, contact Allied Telesis Technical Support through our web site: <http://www.alliedtelesis.com/support/>.

### ***Sales or Corporate Information***

You can contact Allied Telesis for sales or corporate information through our web site: <http://www.alliedtelesis.com/>. To find the contact information for your country, select Contact Us -> Worldwide Contacts.

### ***Management Software Updates***

New releases of management software for our managed products are available from either of the following Internet sites:

- Allied Telesis web site: <http://www.alliedtelesis.com/support/software/>
- Allied Telesis FTP server: <ftp://ftp.alliedtelesis.com/>

If you prefer to download new software from the Allied Telesis FTP server from your workstation's command prompt, you will need FTP client software and you must log in to the server. Enter "anonymous" for the user name and your email address for the password.

### ***Tell Us What You Think***

If you have any comments or suggestions on how we might improve this or other Allied Telesis documents, please contact us at <http://www.alliedtelesis.com>.

## Chapter 1

### Introduction

Thank you for purchasing the AT-6102 IEEE 802.3af PoE Splitter.

The Power over Ethernet Splitter allows a network device that is not POE capable to be remotely powered through an 802.3af compliant line. The following figure shows how Power over Ethernet Splitter works.

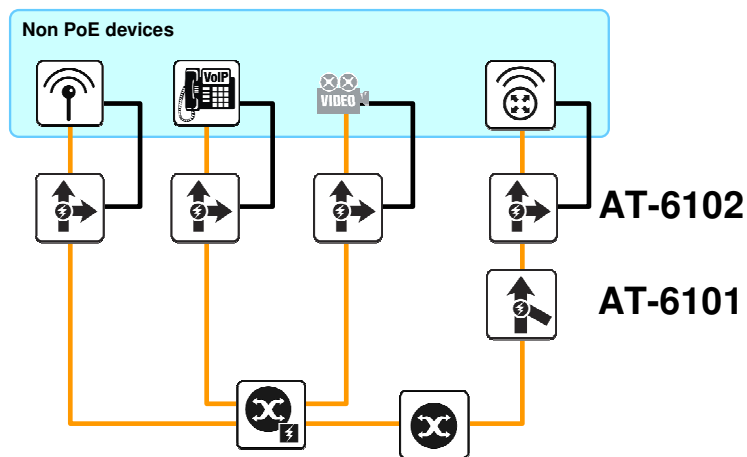


Figure 1: AT-6102 typical application

### Features

- IEEE802.3af compliant
- Short circuit protection
- Delivering power and data to equipment
- 5V, 7.5V, 9V & 12V DC User selectable output voltage
- Plug-and-Play
- Light weight and compact size
- Easy table top and wall mounting
- Self-sticking Velcro strips for attaching to powered device
- For Wireless AP, Bluetooth AP, IP Camera, VoIP Telephones and any other remote power feeding application
- Regulated output voltage
- RoHS and WEEE compliant
- CE, FCC, GOST, C-Tick Approved
- UL Listed

### Hardware description

The Power over Ethernet Splitter has three connection ports, one LED indicator, and a Dipswitch for voltage adjusting.

- **Data In port:** It is a RJ-45 Ethernet interface port for connection to an 802.3af compliant data and power source like a POE injector or a POE capable LAN Switch.
- **Data Out port:** It is a non detachable 315mm long cable terminated with an RJ-45 plug. It carries the Ethernet signal to the powered device.

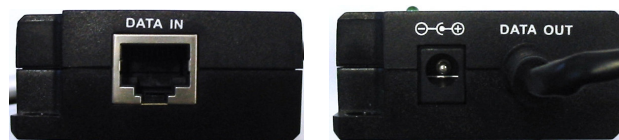


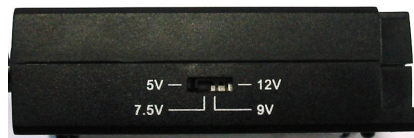
Figure 2: The Data In & Data Out/Power Out ports

- **Power Out port:** It supports two types of power cable – Inner dimension 5.5 x 2.0mm, length 360 mm and 5.5 x 2.5 mm, length 360mm. Both cables are included in the POE Splitter package. The Power Out port is capable of feeding 5V, 7.5V, 9V or 12V DC power to the device.
- **LED indicator:** one Power LED indicator for the system unit. It is located on the topside of the Power over Ethernet Splitter



**Figure 3: Power LED Indicator**

- **Dipswitch:** It allows the user to select the output DC voltage among four different values 5V, 7.5V, 9V and 12V. The POE Splitter comes factory set at 5V. Before changing the output voltage level the POE Splitter must be switched off disconnecting the POE RJ-45 cable from the Data In port.



**Figure 4: DIP Switch**

### **Package Content**

Check your router package for the following items. If an item is missing or damaged, contact your Allied Telesis sales representative for assistance.

- 1 x PoE Splitter
- 1 x DC Power Jack 5.5 x 2.0 mm, length 360 mm
- 1 x DC Power Jack 5.5 x 2.5 mm, length 360 mm
- 1 pair of self sticking Velcro Strips
- This Installation and User Guide



**Figure 5: Package content**

## Chapter 2

### Installation

To install the Power over Ethernet Splitter, please follow the following steps in this exact order:

1. Select on the POE Splitter an output Voltage compatible with the device to be powered. Be aware that Voltage DIP switch is factory set on 5V. When you change voltage by DIP switching to different voltage, the Power over Ethernet Splitter must be in power off status.
2. Connect the **Data In** port on the Power over Ethernet Splitter to a PoE capable LAN Switch or to the **Data Out** port of a POE Injector.
3. Choose the power cable (Internal Diameter 2.0mm or 2.5mm) and plug it into the **Power Out** port on the Power over Ethernet Splitter.
4. Plug in the other end of the PoE Splitter's power cable to the device to be powered (Access Point, VoIP Phone, IP Camera ...).
5. Connect the **Data Out** RJ-45 plug of the PoE Splitter to the powered device (Access Point, VoIP Phone, IP Camera, ...)

### Specifications

<b>Standard</b>	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3af Power over Ethernet
<b>Power jack diameter</b>	2 power cables with straight plug Plug dimensions: 5.5 x 2.0mm, 5.5 x 2.5mm length 360mm each
<b>Adjust Switch</b>	4 segments switch for output voltage select.
<b>Data In &amp; Power In Connector</b>	Data and Power in pin usage : Power : 4 & 5(V+), 7 & 8 (V-) ; 1,&2(V+), 3&6(V-) Data :1 & 2, 3 & 6
<b>Data Out Connector</b>	Data only out: 1 x RJ-45, Data pin 1,2,3,6
<b>Power Out Connector</b>	Power out jack: 5V, 7.5V, 9V, 12V (User Adjustable) Maximum feeding current: 2.0A@5V Maximum output power: 10W
<b>Network Cables</b>	10BASE-T: 2 or 4-pair UTP/STP Cat.3, 4,5 cable EIA/TIA-568 100-ohm (100m) 100BASE-TX: 2 or 4-pair UTP/STP Cat.5 cable EIA/TIA-568 100-ohm (100m)
<b>LED</b>	System: power (green)
<b>Power Input</b>	DC 48V
<b>Operating conditions</b>	Temperature Range: 0°C~ 40°C Humidity: 90% (non-condensing)
<b>Storage conditions</b>	Temperature Range: 0°C~ 70°C Humidity: 90% (non-condensing)
<b>Dimension</b>	80mm x 55mm x 26mm (L x W x H) (main device only)
<b>EMI &amp; Safety certifications</b>	CE, FCC, UL, GOST, C-Tick
<b>Other Certifications / Markings</b>	WEEE, RoHS